AMENDMENTS TO THE SPECIFICATION

In the specification at page 1, line 2, please replace the heading "Description" with the following heading:

FIELD OF THE INVENTION

In the specification at page 1, after line 19, please insert the following heading:

DESCRIPTION OF RELATED ART

In the specification at page 6, after line 3, please insert the following heading:

BRIEF SUMMARY OF THE INVENTION

In the specification at page 6, after line 7, please insert the following paragraphs:

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows various synthetic pathways for the biosynthesis of DHA (docosahexaenoic acid).

Figure 2 shows desaturation of linoleic acid (18:2 ω6-fatty acid) to α-linolenic acid (18:3 ω3-fatty acid) by Pi-omega3Des.

Figure 3 shows desaturation of γ-linolenic acid (18:3 ω6-fatty acid) to stearidonic acid (18:4 ω3-fatty acid) by Pi-omega3Des.

Figure 4 shows desaturation of C20:2 ω6-fatty acid to C20:3 ω3-fatty acid by Pi-omega3Des.

Figure 5 shows desaturation of C20:3 ω6-fatty acid to C20:4 ω3-fatty acid by Pi-omega3Des.

Figure 6 shows desaturation of arachidonic acid (C20:4 ω6-fatty acid) to eicosapentaenoic acid (C20:5 ω3-fatty acid) by Pi-omega3Des.

Figure 7 shows desaturation of docosatetraenoic acid (C22:4 ω6-fatty acid) to docosapentaenoic acid (C22:5 ω3-fatty acid) by Pi-omega3Des.

Figure 8 shows substrate specificity of Pi-omega3Des with regard to a variety of fatty acids.

Figure 9 shows desaturation of phospholipid-bound arachidonic acid to EPA by Pi-

Omega3Des.

DETAILED DESCRIPTION OF THE INVENTION